

Wu, Jennifer

Subject: LNFH Permit ESA consultation
Location: Conference line, (b)(6) Seattle, Mike's office
Start: Fri 4/21/2017 2:00 PM
End: Fri 4/21/2017 2:30 PM
Recurrence: (none)
Meeting Status: Meeting organizer
Organizer: Wu, Jennifer
Required Attendees: Lidgard, Michael; Latier, Andrea; Weber, Courtney; Emi Kondo - NOAA Affiliate; Seyfried, Erin
Resources: R10Sea-ConfLineMM-(b)(6)

Hi Everyone, this meeting is to talk with NOAA about their draft BiOp and take determination. NOAA's attorney and Emi's manager will also be on the line. Briefly, we'll cover two questions:

1. What is the threshold for issuing a take:

- a. Having enough information to demonstrate that an action adversely affects species OR**
- b. Not having enough information to show that an action does not adversely affect species?**

2. Assuming that the threshold for issuing a take is a demonstration is that an action does not adversely affect species, is there sufficient information for the LNFH permit to show that the permit's interim limits for phosphorus will not likely adversely affect species for pH?

NOAA is using a threshold of pH levels between 6.5-9.0 as not causing adverse effects. We have model results that under critical low-flow conditions in September, interim phosphorus limits will result in a maximum pH of 9.05. In other circumstances, pH will be lower and within the 6.5-9.0 range. In addition, the draft BiOp discusses other changes in the hatchery operations that show that phosphorus concentrations are likely lower than what was assumed in the pH response modeling, which would also result in pH being within the 6.5-9.0 range. Given that pH does not have acute effects and exposure to fish, and a pH of 9.05 is likely to be short-term if it occurs at all, this appears to be sufficient information that interim phosphorus limits are not likely to adversely affect fish species.